REMARKS

This paper is in response to the Final Office Action mailed May 25, 2010 ("the Office Action"). The foregoing amendment cancels claims 10 and 11 and amends claims 1, 13, 22, and 25. Claims 1-9 and 12-36 are now pending in view of the amendments. Applicants respectfully request reconsideration of the application in view of the above amendments to the claims and the following remarks. For Examiner's convenience and reference, Applicants present remarks in the order that the Office Action raises the corresponding issues.

In connection with the prosecution of this case and any related cases, Applicants have, and/or may, discuss various aspects of the disclosure of the cited references as those references are then understood by the Applicants. Because such discussion could reflect an incomplete or incorrect understanding of one or more of the references, the position of the Applicants with respect to a reference is not necessarily fixed or irrevocable. Applicants thus hereby reserve the right, both during and after prosecution of this case, to modify the views expressed with regard to any reference.

Please note that Applicants do not intend the following remarks to be an exhaustive enumeration of the distinctions between any cited references and the claims. Rather, Applicants present the distinctions below solely by way of example to illustrate some of the differences between the claims and the cited references. Finally, Applicants request that Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of any reference is consistent with Examiner's understanding.

Unless otherwise explicitly stated, the term "Applicants" is used herein generically and may refer to a single inventor, a set of inventors, an appropriate assignee, or any other entity or person with authority to prosecute this application.

Examiner's Interview

Applicants thank the Examiner for the telephone interview of May 12, 2010, and follow-up interviews held over the course of the week following the initial May 12, 2010, interview. During the interviews, Applicants and the Examiner discussed the teachings of *Pinder et al.* (U.S. Patent Publication No. 2003/0108199), how those teachings were interpreted by the

Examiner to read on the claims, and various amendments to the claims that might overcome *Pinder*. Although no agreement was reached on a set of claim amendments that would overcome the rejection, Applicants have submitted amendments and remarks herein that are believed to overcome the rejection.

Rejection under 35 U.S.C §103(a)

The Office action rejects claims 1-21 under 35 U.S.C §103(a) as being unpatentable over *Pinder et al.* (U.S. Patent Publication No. 2003/0108199) in view of what the Examiner has characterized as Applicants' admitted prior knowledge ("*APK*") and rejects claims 22-36 under 35 U.S.C §103(a) as being unpatentable over *Pinder* in view of *APK* as applied to claims 1-21 in further view of *DeCost et al.* (U.S. Patent No. 7,356,357). Applicants respectfully traverse the rejection in light of the foregoing amendments and the following remarks.

Under 35 U.S.C §103(a), "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." According to MPEP §2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Finally, MPEP 2141.III notes that:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "'[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396.

A.   Independent Claim 1

Claim 1, as amended, recites a transceiver comprising:

> an electrical interface configured to receive outgoing data signals from a host coupled to the transceiver and transmit incoming data signals to the host;

a fiber optic transmitter configured to transmit the outgoing data signals received from the host via the electrical interface;

a fiber optic receiver configured to receive the incoming data signals from an external device over a network communications channel; and

a controller configured to encrypt a string and supply the encrypted string to the host via the electrical interface to authenticate the transceiver."

In contrast, *Pinder*, whether considered individually or in combination with *APK*, fails to teach or suggest the foregoing limitations.

For example, in rejecting claim 1, the Examiner identified a DSCT (110) as the claimed "transceiver" and identified a headend (102) as the claimed "host." *See Pinder* at Figure 1 (copied below). Although *Pinder* describes an "optical filter" between DSCT (110) and headend (102), DSCT (110) does not transmit outgoing data signals over the optical fiber that are received from headend (102), as required by amended claim 1. Instead, DSCT (110) decodes and displays on a display device (e.g., a TV (112)) signals received from headend (102). *See Pinder* at ¶ 40.
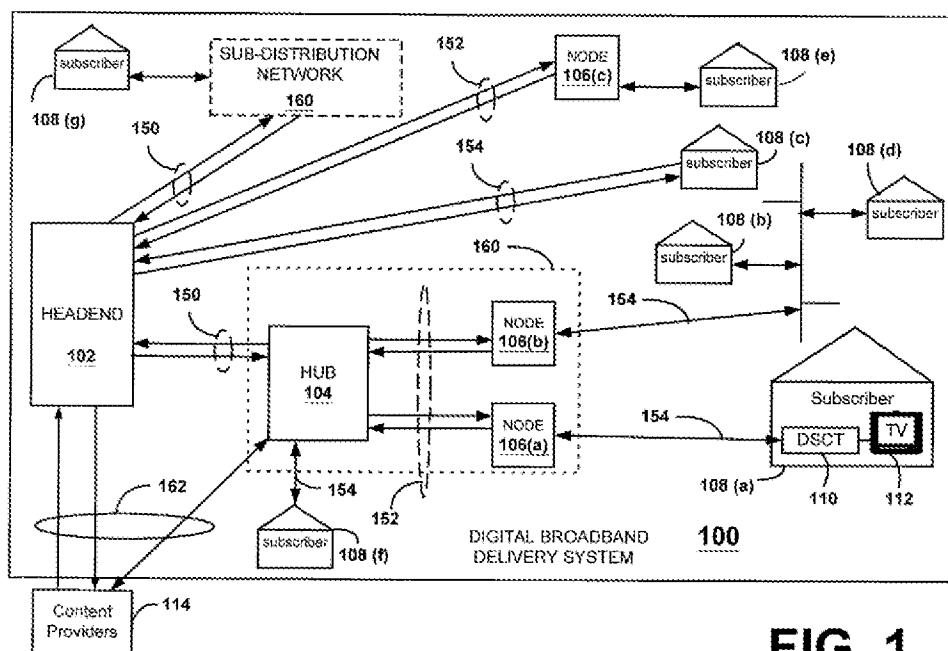
FIG. 1

Furthermore, DSCT (110) is not "configured to receive the incoming data signals [to the host] from an external device over a network communications channel," as claimed.

Instead, DSCT (110) is located at a subscriber premise (*see Pinder* at Fig. 1) for use by a subscriber and, therefore, does not receive signals addressed to headend (102) from other devices.

The *APK*, relied on for its purported teachings related to quality standard certification by a manufacturer, fails to cure the deficiencies of *Pinder* noted above. Accordingly, Applicants respectfully submit that claim 1, as amended, is in condition for allowance and withdrawal of the rejection of claim 1 and its corresponding dependent claims is respectfully requested.

B.   Independent Claim 13

Claim 13 recites a network system comprising a transceiver, the transceiver, in turn, comprising "a controller...configured to encrypt the string using a <u>host-selectable</u> one of a <u>plurality</u> of transceiver private encryption keys stored in the transceiver." (Emphases added.) In contrast, *Pinder*, whether considered individually or in combination with *APK*, fails to teach or suggest the foregoing limitations.

For example, in rejecting claims 23 and 24 (which are of different scope than claim 13 but recite details regarding a "second" unique transceiver-specific private encryption key), the Examiner takes "Official Notice" that "in order to have a strong security system, it is old and well known practice in the art of cryptography to have other cryptographic keys for replacement and substitution of the keys that are currently used either when the keys are expired or if it is suspected that the keys have been used by an unauthorized entity." *See Office Action* at 12.

According to MPEP §2144.03(B), official notice is only proper where Examiner either provides evidentiary support or a technical line of reasoning underlying the decision to take such notice that is clear and unmistakable. Because the Office Action provides neither, the rejection is improper. Applicants therefore respectfully request that Examiner withdraw the rejection of claim 13 under 35 U.S.C. §103(a).

In connection with the immediately foregoing, Applicants note that the Examiner is relying on personal knowledge as a basis for rejecting claim 13. 37 C.F.R. §1.104(d)(2) provides that "[w]hen a rejection in an application is based on facts within the personal knowledge of an

employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons." Pursuant to foregoing regulation, Applicants hereby respectfully request an Examiner affidavit that: (i) specifically identifies any and all reference(s), other than those that have been specifically cited by the Examiner, upon which the obviousness rejection of claim 13 is based; and (ii) provides complete details as to the reasoning and analysis of the Examiner concerning those references as those references are purported to apply to the rejection of claim 13. This request remains in force throughout the prosecution of this case unless expressly withdrawn by Applicants.

Moreover, even assuming for sake of argument, the Examiner is able to cite prior art that supports the taking of Official Notice, Applicants respectfully note that the use of "other cryptographic keys for replacement and substitution" does not teach or suggest making the plurality of keys "host-selectable," as claimed, or storing the keys in the transceiver undergoing authentication, as required by claim 13. Therefore, should the Examiner maintain the Official Notice or cite references in support of the Official Notice, Applicants respectfully note that the foregoing limitations of claim 13 must also be addressed.

C.   Independent Claims 22, 25, 29, and 32

Claim 22 recites a transceiver comprising a transmitter and a receiver configured and arranged to transmit and receive data signals "over a network connection" and a controller configured and arranged to communicate with a "local host" over a "local communication link" to authenticate the transceiver. Figure 1 of Applicants' specification (copied below) depicts an example transceiver having a controller (38) configured and arranged to communicate with a local host over a local communication link (34). Also, although not specifically depicted in Figure 1, transceiver circuit (40) includes a transmitter and a receiver configured and arranged to transmit and receive data signals "over a network connection."
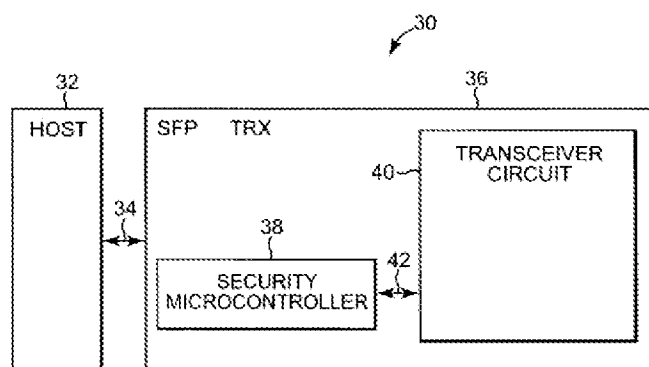
Fig. 1

In contrast, *Pinder* describes an opposite arrangement. As shown in Figure 1 of *Pinder* (copied below), a DSCT (110) (identified as the claimed "transceiver") is located <u>remotely</u> from a headend (102) (identified as the claimed "host"). Thus, DSCT (110) appears to communicate with headend (102) over a long-distance network connection.
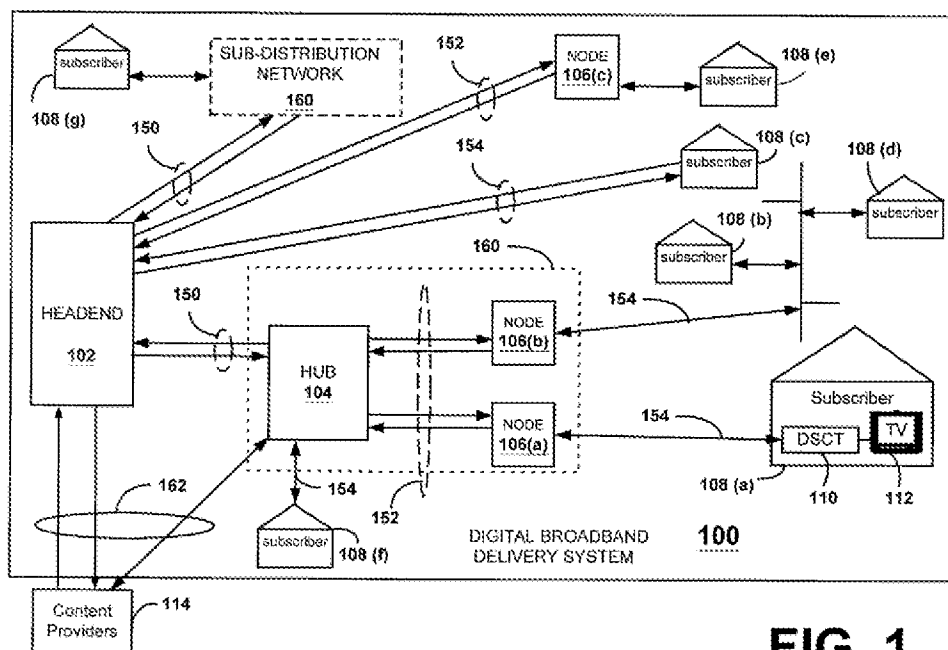

FIG. 1

In fact, the Examiner acknowledges that "Pinder in view of APK does not expressly disclose that the host is a local host that authenticates the transceiver." *See Office Action* at 11. However, the Examiner then alleges that *DeCost* discloses a system in which a host device and a transceiver are local to each other and that it would have been obvious to install or deploy DSCT

(110) local to headend (102) of *Pinder* in view of this teaching in *DeCost*. *See id.* Applicants respectfully disagree.

Installing or deploying DSCT (110) local to headend (102) in *Pinder's* broadband system would preclude a subscriber from being able to receive content at their home, i.e., remote from headend (102). Thus, this proposed modification of *Pinder* would render *Pinder* unsatisfactory for its intended purpose of distributing content to a plurality of remote subscriber premises that are remote from headend (102). Accordingly, there is "no suggestion or motivation to make the proposed modification." *See MPEP* § 2143.01.V.

The Examiner asserts that the modification of *Pinder* in view of *DeCost* would have been obvious because it would enable "downloading information from a local computer and transmit to a display unit." *See Office Action* at 11. However, DSCT (110) of *Pinder* does not appear to be deficient in terms of downloading or transmitting information to a display unit. In fact, those functions appear to be among its primary purposes. *See Pinder* at ¶ 40. Thus, contrary to the Examiner's implication, no benefit or advantage appears to be gained by importing the teachings of *DeCost* into *Pinder*.

Also, in an attempt to demonstrate that authenticating a transceiver at a "local" host would have been obvious, the Examiner asserts that "the location of a host in relation to a transceiver does not have any affect on the authentication and verification process of the transceiver." *See Office Action* at 3. Applicants respectfully submit, however, that locating DSCT (110) of *Pinder* to be "local" to headend (102) (or vice-versa) would affect other important functions of *Pinder's* broadband content distribution system. For example, as noted above, this modification would eliminate the convenience of receiving content at a subscriber's home. Therefore, *Pinder* teaches away from a controller of a transceiver configured and arranged to communicate with a "local host" over a "local communication link" to authenticate the transceiver, as claimed.

Each of claims 25, 29, and 32, while of different scope than claim 22, recites limitations similar to those of claim 22 discussed above. For example, claim 25 recites a fiber optic transceiver comprising "a controller configured to authenticate the fiber optic transceiver to [a] local host upon installation of the fiber optic transceiver." (Emphasis

added.) Moreover, claim 29 recites a method comprising "installing a transceiver in the system so that the transceiver is in communication with a <u>local host</u>; [and] sending an authentication signal from the transceiver to the local host" and claim 32 recites "a method comprising "<u>plugging</u> a transceiver into a corresponding receptacle of a <u>local host</u> to electrically couple the transceiver to the local host through a communication link." (Emphases added.) As discussed above, however, the prior art references, whether considered individually or in combination, fail to teach or suggest authenticating a transceiver to a "local" host. Moreover, the controller of the fiber optic transceiver of claim 25 is configured to authenticate the fiber optic transceiver "without using [a] network communications channel." In contrast, the authentication described in *Pinder* is done <u>with use</u> of a network channel (i.e., using transmission media 150, 152, and 154.) *See Pinder* at Figure 1.

In light of the foregoing, claims 22, 25, 29, and 32 are submitted to be allowable over the cited art of *Pinder*, *APK*, and *DeCost*. Accordingly, withdrawal of the rejection of claims 22, 25, 29, and 32, and their corresponding dependent claims, is respectfully requested.

Charge Authorization

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefor and charge any additional fees that may be required to Deposit Account No. 23-3178.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are allowable. In the event that Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview or overcome by an Examiner's Amendment, Examiner is requested to contact the undersigned attorney.

Dated this 2nd day of August, 2010.

Respectfully submitted,

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